

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1-43 (Canceled)

Claim 44 (Currently amended): A method of using user interface data received from a remote device to create a user interface for a thin information appliance to control the remote device from the thin information appliance, wherein the user interface is created from a user interface template stored in the thin information appliance, the method comprising:

initiating a connection between the thin information appliance and the remote device to supply the user interface data for use with the user interface template in creating the user interface, wherein said user interface template ~~being~~ is stored in the thin information appliance prior to the initiation of said connection, and further wherein the user interface template includes a plurality of representations;

receiving in the thin information appliance the user interface data from the remote device to be controlled, wherein the user interface data describes a plurality of remote device functions performed by the remote device;

comparing the user interface data with the user interface template of the thin information appliance;

based on said comparing, determining functions available in the user interface template that correspond to each of the plurality of remote device functions described by the user interface data;

based on said determining, assigning one of [[a]] the plurality of representations respectively to each one of the plurality of remote device functions described by the user interface data;

creating the user interface from the user interface template by programming each of the assigned plurality of representations of the user interface for the thin information appliance to respectively control its corresponding one of the plurality of remote device functions; and

storing the created user interface on the thin information appliance, the user interface including the assigned plurality of representations programmed to control the plurality of remote device functions.

Claim 45 (Previously presented): The method as described in claim 44, wherein the user interface data describing the plurality of remote device functions does not comprise a whole of the user interface for the thin information appliance to control the remote device, thereby reducing resources usage of the thin information appliance.

Claim 46 (Currently amended): The method as described in claim 44, wherein the plurality of representations include at least one representation selected from a group consisting of an icon, a scroll bar, a back arrow, a forward arrow, a keypad, a horizontal scrollbar, and a vertical scrollbar.

Claim 47 (Previously presented): The method as described in claim 44, further comprising:

accepting input from a user to interact with a selected representation from among the plurality of representations; and

communicating the input to the remote device through a network such that the user is able to utilize the a desired function on the remote device corresponding to the selected representation.

Claim 48 (Previously presented): The method as described in claim 44, wherein the plurality of remote device functions of the remote device include at least one selected from a group consisting of viewing remote device interface functions, viewing a remote device output, selecting the remote device interface functions, selecting the remote device output, changing the remote device interface functions, and changing the remote device output.

Claim 49 (Previously presented): The method as described in claim 47, further comprising:

monitoring interaction of a user with the selected representation from among the plurality of representations; and

storing data representative of the monitored interaction, the data representative of the monitored interaction being used to configure the display of the selected representation.

Claim 50 (Previously presented): The method as described in claim 49, wherein the data representative of the monitored interaction includes an amount of time spent by the user interacting with the selected representation, and further wherein a display of the plurality of

representations is configured to include the selected representation if said amount of time is greater than a threshold amount of time.

Claim 51 (Previously presented): The method as described in claim 49, wherein the data representative of the monitored interaction includes a number of times spent by the user interacting with the selected representation, and further wherein a display of the plurality of representations is configured to include the selected representation if said number of time is greater than a threshold number of times.

Claim 52 (Previously presented): The method as described in claim 44, further comprising:

identifying a resource on the remote device with which a user interacts; and
loading a user interface representation corresponding to the identified resource.

Claim 53 (Currently amended): A thin information appliance configured to receive user interface data from a remote device to create a user interface for the thin information appliance to control the remote device from the thin information appliance, wherein the user interface is created from a user interface template stored in the thin information appliance, the thin information appliance comprising:

network connection means for initiating a connection between the thin information appliance and the remote device to provide the user interface data from the remote device to be controlled to the thin information appliance, wherein the user interface data describes a plurality

of remote device functions performed by the remote device, said user interface data being configured for use with the user interface template to create the user interface;

a memory configured to store logic for comparing the user interface data with the user interface template of the thin information appliance;

the memory also being configured to store logic for determining functions available in the user interface template that correspond to each of the plurality of remote device functions described by the user interface data based on said logic for comparing;

the memory further being configured to store logic for assigning one of a plurality of representations respectively to each one of the plurality of remote device functions described by the user interface data based on said logic for determining; and

a processor configured create the user interface from the user interface template by programming each of the assigned plurality of representations of the user interface for the thin information appliance to respectively control its corresponding one of the plurality of remote device functions;

wherein the user interface template is stored in the memory of the thin information appliance prior to the initiation of said connection, the user interface including the assigned plurality of representations programmed to control the plurality of remote device functions.

Claim 54 (Previously presented): The thin information appliance as described in claim 53, wherein the user interface data describing the plurality of remote device functions does not comprise a whole of the user interface for the thin information appliance to control the remote device, thereby reducing resources usage of the thin information appliance.

Claim 55 (Currently amended): The thin information appliance as described in claim 53, wherein the plurality of representations include at least one representation selected from a group consisting of an icon, a scroll bar, a back arrow, a forward arrow, a keypad, a horizontal scrollbar, and a vertical scrollbar.

Claim 56 (Previously presented): The thin information appliance as described in claim 53, further comprising:

logic for accepting input corresponding to the interaction by the user with a selected one of the representations; and

logic for communicating the input to the remote device through the network such that the user is able to utilize the user interface function on the remote device corresponding to the selected representation.

Claim 57 (Previously presented): The thin information appliance as described in claim 53, further comprising:

logic for monitoring the interaction of the user with the display of the at least one representation; and

logic for storing data representative of the monitored interaction, the monitored interaction data capable of being used to configure the display of the at least one representation.

Claim 58 (Currently amended): A storage medium readable by a thin information appliance and having instructions encoded thereon for causing the thin information appliance to perform steps of a method of receiving user interface data from a remote device to create a user

interface for controlling the remote device from the thin information appliance, wherein the user interface is created from a user interface template stored in the thin information appliance, the instructions stored on the storage medium comprising the steps of:

initiating a connection between the thin information appliance and the remote device to supply the user interface data for use with the user interface template in creating the user interface, wherein said user interface template is stored in the thin information appliance prior to the initiation of said connection, and further wherein the user interface template includes a plurality of representations;

receiving in the thin information appliance the user interface data from the remote device to be controlled, wherein the user interface data describes a plurality of remote device functions performed by the remote device;

comparing the user interface data with the user interface template of the thin information appliance;

based on said comparing, determining functions available in the user interface template that correspond to each of the plurality of remote device functions described by the user interface data;

based on said determining, assigning one of ~~[[a]]~~ the plurality of representations respectively to each one of the plurality of remote device functions described by the user interface data;

creating the user interface from the user interface template by programming each of the assigned plurality of representations of the user interface for the thin information appliance to respectively control its corresponding one of the plurality of remote device functions; and

storing the created user interface on the thin information appliance, the user interface including the assigned plurality of representations programmed to control the plurality of remote device functions.

Claim 59 (Previously presented): The storage medium as described in claim 58, wherein the user interface data describing the plurality of remote device functions does not comprise a whole of the user interface for the thin information appliance to control the remote device, thereby reducing resources usage of the thin information appliance.

Claim 60 (Currently amended): The storage medium as described in claim 58, wherein the plurality of representations include at least one representation selected from a group consisting of an icon, a scroll bar, a back arrow, a forward arrow, a keypad, a horizontal scrollbar, and a vertical scrollbar.

Claim 61 (Previous presented): The store medium as described in claim 58, the instructions store on the storage medium comprising the steps of:

accepting input corresponding to the interaction by the user with a selected representation from the plurality of representations; and

communicating the input to the remote device through a network such that the user is able to utilize the user interface function on the remote device corresponding to the selected representation.

Claim 62 (Previously presented): The storage medium as described in claim 61, wherein the input includes at least one of selecting an icon, manipulating a scroll bar, inputting a data set, and interacting with a representation of a user interface function on the remote device.

Claim 63 (Currently amended): A method of configuring a user interface on a thin information appliance for controlling a remote device, the user interface being created based on a user interface template stored in the thin information appliance .and configured from received user interface data, the method comprising:

accessing a resource on the remote device through a network;

evaluating interaction of a user with the resource;

identifying the resource based on the evaluated interaction; and

initiating a connection between the thin information appliance and the remote device to supply the user interface data for use with the user interface template in creating the user interface, wherein said user interface template ~~being~~ is stored in the thin information appliance prior to the initiation of said connection, and further wherein the user interface template includes a plurality of representations;

comparing the user interface data with the user interface template of the thin information appliance;

based on said comparing, determining functions available in the user interface template that correspond to each of the plurality of remote device functions described by the user interface data;

based on said determining, assigning one of [[a]] the plurality of representations respectively to each one of the plurality of remote device functions described by the user interface data;

creating the user interface from the user interface template by programming each of the assigned plurality of representations of the user interlace for the thin information appliance to respectively control its corresponding one of the plurality of remote device functions; and

storing the created user interface on the thin information appliance, the user interface including the assigned plurality of representations programmed to control the plurality of remote device functions.

Claim 64 (Previously presented): The method as described in claim 63, wherein the user interface data describing the plurality of remote device functions does not comprise a whole of the user interface for the thin information appliance to control the remote device, thereby reducing resources usage of the thin information appliance.

Claim 65 (Currently amended): The method as described in claim 63, ~~the instructions stored on the storage medium~~ further comprising ~~the steps of~~:

accepting input corresponding to the interaction by the user with a selected representation from the plurality of representations; and

communicating the input to the remote device through a network such that the user is able to utilize the user interface function on the remote device corresponding to the selected representation.

Claim 66 (Previously presented): The method as described in claim 63, wherein the input includes at least one of selecting an icon, manipulating a scroll bar, inputting a data set, and interacting with a representation of a user interface function on the remote device.

Claim 67 (Currently amended): A system for configuring a user interface on a thin information appliance for controlling a remote device, the user interface being created based on a user interface template stored in the thin information appliance and configured from received user interface data, the system comprising:

a communications network configured to provide a connection between the thin information appliance and the remote device to supply the user interlace data for use with the user interface template in creating the user interface, wherein said user interface template ~~being~~ is stored in the thin information appliance prior to the initiation of said connection, and further wherein the user interface template includes a plurality of representations;

the remote device comprising:

equipment capable of connecting to the communications network; and

a plurality of remote device functions: and

the information appliance comprising:

equipment configured to provide at least intermittent connection between the thin information appliance and the remote device through the communications network;

logic capable of receiving through the communications network the user interface data describing the plurality of remote device functions of the remote device;

logic capable of comparing the user interface data with the user interface template of the thin information appliance;

logic capable of determining functions available in the user interface template that correspond to each of the plurality of remote device functions described by the user interface data based on said logic for comparing;

logic capable of assigning one of [[a]] the plurality of representations respectively to each one of the plurality of remote device functions described by the user interface data based on said logic for determining;

logic capable of creating the user interface from the user interface template by programming each of the assigned plurality of representations of the user interface for the thin information appliance to respectively control its corresponding one of the plurality of remote device functions; and

logic capable of storing the created user interface on the thin information appliance, the user interface including the assigned plurality of representations programmed to control the plurality of remote device functions.

Claim 68 (Previously presented): The system as described in claim 67, wherein the user interface data describing the plurality of remote device functions does not comprise a whole of the user interface for the thin information appliance to control the remote device, thereby reducing resources usage of the thin information appliance

Claim 69 (Previously presented): The system as described in claim 67, further comprising:

accepting input corresponding to the interaction by the user with a selected representation from the plurality of representations; and

communicating the input to the remote device through a network such that the user is able to utilize the user interlace function on the remote device corresponding to the selected representation.

Claim 70 (Previously presented): The system as described in claim 69, wherein the input includes at least one of selecting an icon, manipulating a scroll bar, inputting a data set, and interacting with a representation of a user interface function on the remote device.

Claim 71 (Previous presented): The method as described in claim 44, further comprising:
using a rendering engine of the thin information appliance to configure the user interface based on said user interface data received.

Claim 72 (Currently amended): The method as described in claim 44, wherein the remote device is a first remote device, the user interface is a first user interface, and the user interface data is first user interface data, the method further comprising:

creating a second user interface for said thin information appliance to control a second remote device, the second user interface being created from said user interface template of said thin information appliance based on second user interface data received from the second remote device.

Claim 73 (Previous presented): The thin information appliance as described in claim 53, wherein said memory is further configured to store a rendering engine of the thin information appliance suitable for configuring the user interface based on said user interface data received.

Claim 74 (Currently amended): The thin information appliance as described in claim 53, wherein the remote device is a first remote device, the user interface is a first user interface, and the user interface data is first user interface data;

wherein said memory is further configured to store logic for creating a second user interface for said thin information appliance to control a second remote device, the second user interface being created from said user interface template of said thin information appliance based on second user interface data received from the second remote device.

Claim 75 (Previous presented): The storage medium as described in claim 58, the instructions stored on the storage medium comprising the steps of:

using a rendering engine of the thin information appliance to configure the user interface based on said user interface data received.

Claim 76 (Currently amended): The storage medium as described in claim 58, wherein the remote device is a first remote device, the user interface is a first user interface and the user interface data is first user interface data, the instructions stored on the storage medium comprising the steps of:

creating a second user interface for said thin information appliance to control a second remote device, the second user interface being created from said user interface template of said thin information appliance based on second user interface data received from the second remote device.

Claim 77 (Currently amended): The method as described in claim 63, ~~the instructions stored on the storage medium~~ further comprising ~~the steps of~~:

using a rendering engine of the thin information appliance to configure the user interface based on said user interface data received.

Claim 78 (Currently amended): The method as described in claim 63, wherein the remote device is first remote device, the user interface is a first user interface, and the user interface data is first user interface data, ~~the instructions stored on the storage medium~~ further comprising ~~the steps of~~:

creating a second user interface for said thin information appliance to control a second remote device, the second user interface being created from said user interface template of said thin information appliance based on second user interface data received from the second remote device.

Claim 79 (Currently amended): The system as described in claim 67, wherein the thin information appliance comprises:

a rendering engine suitable for configuring the user interface based on said user interface data received.

Claim 80 (Currently amended): The system as described in claim 67, wherein the remote device is a first remote device, the user interface is a first user interface, and the user interface data is first user interface data, the thin information appliance comprising:

logic capable of creating a second user interface for said thin information appliance to control a second remote device, the second user interface being created from said user interface template of said thin information appliance based on second user interface data received from the second remote device.